

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT
(PCT Rule 72.2)

To:

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Date of mailing (<i>day/month/year</i>) 28 April 2005 (28.04.2005)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 15263/-/S	
International application No. PCT/EP2003/009799	International filing date (<i>day/month/year</i>) 04 September 2003 (04.09.2003)
Applicant THINXXS GMBH et al	

Fristablauf ☐ not**1. Transmittal of the translation to the applicant.**

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

2. Transmittal of the copy of the translation to the elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

AZ, CA, CN, CO, GH, KG, KP, KR, MK, MZ, RU, TM

The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AU, BA, BB, BR, BY, BZ, CR, CU, DM, DZ, EA, EC, EP, GD, GE, GM, HR, ID, IL, IN, IS, JP, KE, KZ, LC, LK, LR, LS, LT, LV, MA, MD, MG, MN, MW, MX, NI, NO, NZ, OA, OM, PG, PH, PL, SC, SD, SG, SL, SY, TJ, TN, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO
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PATENT COOPERATION TREATY

PCT/EP2003/009799



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 15263/-/S	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/009799	International filing date (day/month/year) 04 September 2003 (04.09.2003)	Priority date (day/month/year) 11 September 2002 (11.09.2002)
International Patent Classification (IPC) or national classification and IPC F04B 43/04, 53/10		
Applicant THINXXS GMBH		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u>7</u> sheets.</p>	
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>	

Date of submission of the demand 07 April 2004 (07.04.2004)	Date of completion of this report 31 August 2004 (31.08.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/009799

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
pages _____ 4-10 _____, as originally filed
pages _____, filed with the demand
pages _____ 1-3 _____, filed with the letter of _____ 04 August 2004 (04.08.2004)
- ☒ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____ 1-20 _____, filed with the letter of _____ 04 August 2004 (04.08.2004)
- ☒ the drawings:
pages _____ 1/4-4/4 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

- These elements were available or furnished to this Authority in the following language _____ which is:
- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP 03/09799

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-20	YES
	Claims		NO
Inventive step (IS)	Claims	1-20	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims		NO

2. Citations and explanations

Reference is made to the following documents:

D1: US-B1-6 334 761 (MENG ELLIS et al.), 1 January 2002
(2002-01-01)

D2: EP-A-0 424 087 (SEIKO EPSON CORP), 24 April 1991
(1991-04-24)

- Document D1, which is considered to be the prior art closest to the subject matter of claim 1, discloses the following:

Micro pump with a pump diaphragm which can move so as to change the volume of a pump chamber adjacent to the pump diaphragm and a main part, and with two valves mounted in recesses in the main part which respond to the pressure in the pump chamber and are used to open and close, in alternation, an inlet and an outlet for the pumped medium, the valves being without common components but being formed by valve assemblies which are functional as such and have a valve seat and valve body, and the valve assemblies having a seat component that forms the valve seat, with a recess which is formed by a raised baseplate rim and receives a spring

component that forms the valve body (see D1, figures 3 to 5, and the description, column 3, line 11 to column 5, line 10).

The subject matter of claim 1 differs from the known micropump in that the valve assemblies are formed by the seat and spring components alone, and in that the spring component is centred by the raised rim and is welded to the baseplate of the seat component in an annular peripheral area.

The problem addressed by the present invention can thus be seen as that of providing valve assemblies that are easy to manufacture, centre and weld.

The solution proposed in claim 1 of the present application is neither known from nor derivable from the available documents. The subject matter of claim 1 therefore involves an inventive step (PCT Article 33(3)).

2. Claims 2 to 20 are dependent on claim 1 and therefore also meet the PCT requirements in respect of novelty and inventive step.